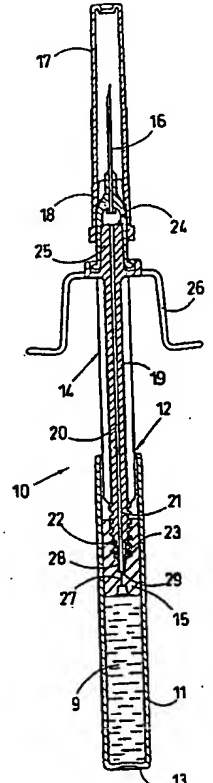


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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : A61M 5/28, 5/315	A3	(11) International Publication Number: WO 00/13723 (43) International Publication Date: 16 March 2000 (16.03.00)
<p>(21) International Application Number: PCT/GB99/02904</p> <p>(22) International Filing Date: 2 September 1999 (02.09.99)</p> <p>(30) Priority Data: 9819222.2 4 September 1998 (04.09.98) GB 9900578.7 13 January 1999 (13.01.99) GB</p> <p>(71) Applicant (for all designated States except US): OWEN MUMFORD LIMITED [GB/GB]; Brook Hill, Woodstock, Oxford OX20 1TU (GB).</p> <p>(72) Inventor; and (75) Inventor/Applicant (for US only): MEYER, Gabriel [CH/CH]; Route de la Dullive, CH-1195 Dully (CH).</p> <p>(74) Agents: LAINE, Simon, James et al.; Wynne-Jones, Laine & James, 22 Rodney Road, Cheltenham, Gloucestershire GL50 1JJ (GB).</p>	<p>(81) Designated States: AU, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published With international search report.</p> <p>(88) Date of publication of the international search report: 6 July 2000 (06.07.00)</p>	
<p>(54) Title: IMPROVEMENTS RELATING TO FLUID TRANSFER ASSEMBLIES</p> <p>(57) Abstract</p> <p>A medical substance (9, 92) is contained in a body (11, 82, 123) by a plug which (15, 67, 90, 122) is penetrated rather than removed in order to extract the substance in a sterile manner. The plug (15, 67, 90, 122) has a socket (23, 70, 91) open to the exterior and a connector (14, 60, 82, 120) has a screw threaded nose (22, 62, 95, 121) which engages therein, either by screwing into a complementary thread or by self tapping. The plug (15, 67, 122) may have a pre-cut slit (27, 68, 126) through it from the base of the socket (23, 70) and as the connector screws in a spigot (29, 64, 124) on its extremity works through the slit. A passage (20) through the spigot and nose is then available to the substance. When the connector is unscrewed, the slit closes up. Alternatively, the nose (95) may carry a hollow needle (96) which pierces its way through the plug (90). The plug may be a piston-seal (15, 90, 122) of a syringe or the cap (67) of a bottle (66). The connector may be a transfer device (83, 113) connectable to another body (81, 110) containing a substance to be mixed with the first substance before use.</p> 		

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INTERNATIONAL SEARCH REPORT

Internat Application No

PCT/GB 99/02904

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61M5/28 A61M5/315

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61M A61J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 775 506 A (GRABENKORT RICHARD W) 7 July 1998 (1998-07-07) column 3, line 57 -column 4, line 15 figures 4,6	1,2,5, 7-13,17
Y	---	3,4, 12-14,16
X	EP 0 264 273 A (DAIKYO GOMU SEIKO KK) 20 April 1988 (1988-04-20) figure 2	1,7-11, 17
Y	---	3
	GB 836 279 A (AMERICAN HOME PRODUCTS CORPORATION) 1 June 1960 (1960-06-01) page 2, line 95 - line 101; figure 10 ---	

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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Date of the actual completion of the international search

21 December 1999

Date of mailing of the international search report

18. 04. 2000

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/02904

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 95 32015 A (MEYER GABRIEL) 30 November 1995 (1995-11-30) page 15, line 28 -page 16, line 12 figures 23-26 ---	4
Y	US 5 569 191 A (MEYER GABRIEL) 29 October 1996 (1996-10-29) abstract; figures 1-4 ---	12-14
Y	US 3 659 602 A (CLOYD HAROLD S) 2 May 1972 (1972-05-02) figure 1 ---	16
A	FR 1 130 413 A (FARBWERKE HOECHST AG) 5 February 1957 (1957-02-05) page 2, left-hand column, line 11 - line 24; figures -----	3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB 99/ 02904

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
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3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-17

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: 1-17

Fluid transfer assembly

2. Claims: 18-24

assembly protecting the needle of a syringe

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 99/02904

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